Utah Influenza Report

This report contains data through the week ending 01/03/2015 (MMWR week 53).

UTAH DEPARTMENT OF HEALTH
Communicable Disease Analysis & Reporting Program

Overview of Influenza Surveillance: Surveillance for the 2014-2015 influenza season officially began on September 28, 2014. The Utah Department of Health publishes a weekly report throughout the active influenza season that synthesizes data from a variety of sources to give the most complete and up-to-date picture of influenza activity in the state of Utah. Data in this report should be considered provisional, and may change as more complete reports are received.

Influenza-like Illness (ILI): The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) is a national system that conducts surveillance for influenza-like illness (ILI) in outpatient healthcare facilities. ILINet providers report weekly the total number of patients seen for any reason and the number of patients seen with ILI (defined as a fever ≥ 100° F and a cough or sore throat). These data are used to determine the amount of ILI circulating in the community, as well as provide insight into regional differences in ILI activity. More than 50 facilities within 10 health jurisdictions throughout Utah participate in ILINet.

Figure 1. Weekly Influenza-like Illness Activity
Influenza-like illness (ILI) activity as measured by the number of standard deviations from the epidemic threshold - Utah, 2014-2015

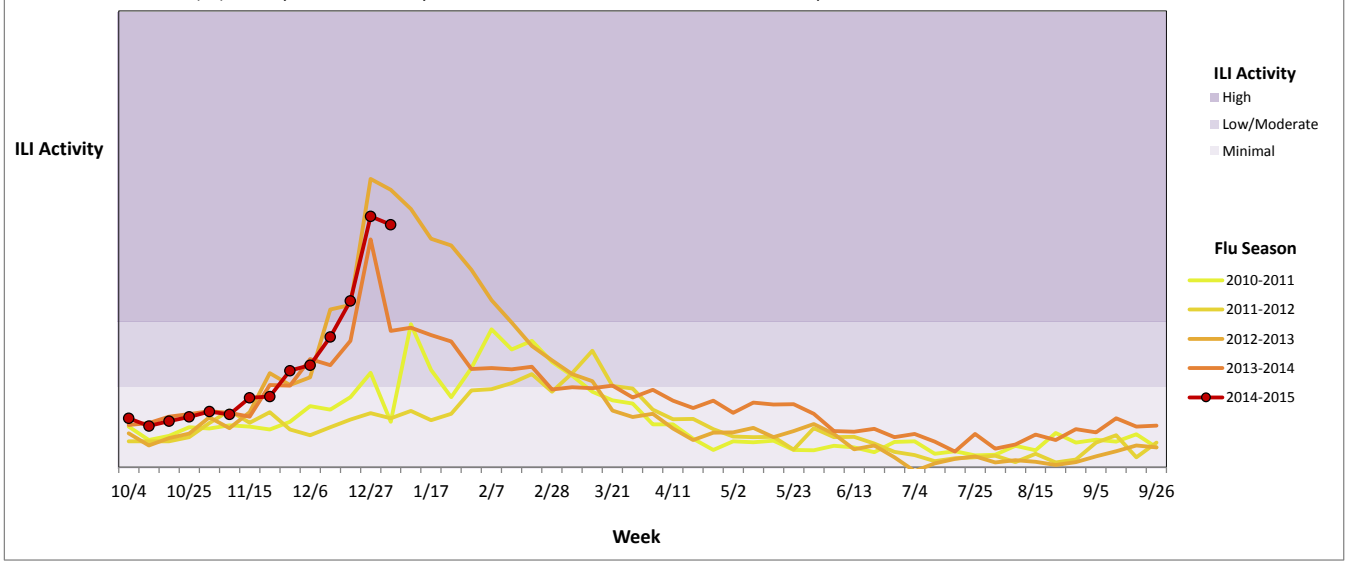

Table 1. Influenza-like Illness (ILI) Activity Levels by Health District - Utah, Current Week

Health District	ILI Activity
Bear River	High
Central Utah	Minimal
Davis County	Low/Moderate
Salt Lake County	High
Southeast Utah	No Data *
Southwest Utah	High
Summit County	Minimal
Tooele County	Minimal
TriCounty	No Data *
Utah County	High
Wasatch County	Low/Moderate
Weber-Morgan	Low/Moderate
State Average	**High**

*No participating sites in this jurisdiction

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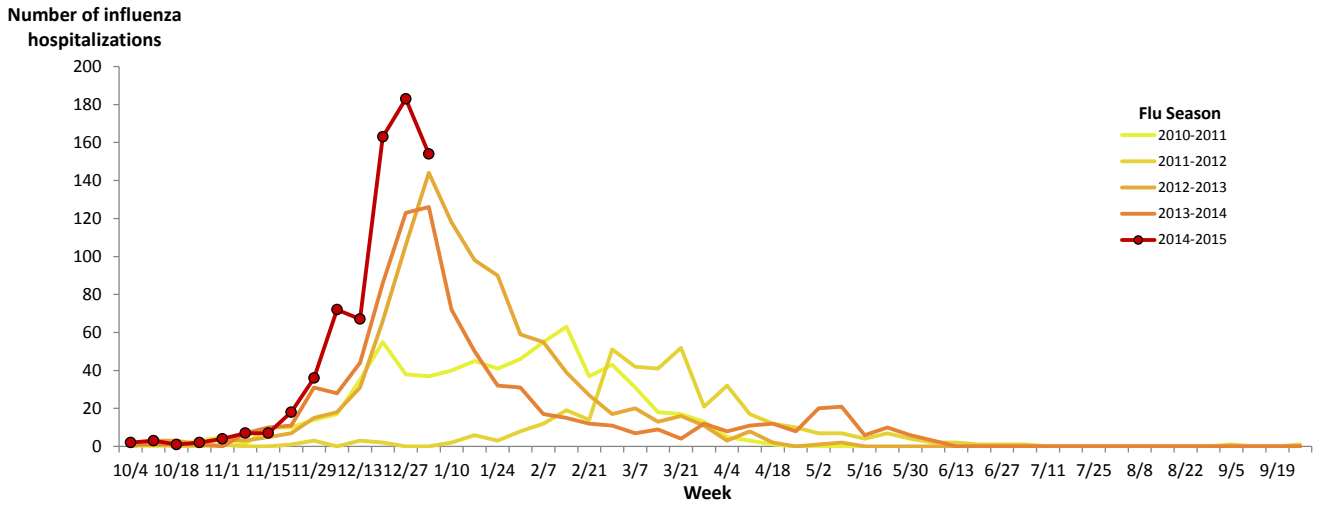
Influenza Hospitalizations: Influenza hospitalizations are a reportable condition in Utah. A person meets the case definition for an influenza hospitalization if they are hospitalized for any length of time and have an influenza positive serology, DFA, PCR, culture or rapid influenza diagnostic test. Public health in Utah gathers a variety of data on influenza hospitalizations including clinical features, course of illness, risk and protective factors, and influenza type and subtype. Data from influenza hospitalizations allows public health in Utah to better understand subgroups of the Utah population that are most severely affected by influenza and help to guide prevention messages and interventions.

Figure 2. Influenza Hospitalizations
Number of influenza hospitalizations by event date* - Utah, 2014-2015



*Event date is calculated based on a hierarchy of dates: 1. onset date 2. specimen collection date 3. date reported to public health.

Table 2. Influenza Hospitalizations by Health District - Utah

Health District	Current Week	Season To Date
Bear River	10	27
Central Utah	5	14
Davis County	23	87
Salt Lake County	83	398
Southeast Utah	0	2
Southwest Utah	12	48
Summit County	4	8
Tooele County	1	5
TriCounty	0	10
Utah County	1	54
Wasatch County	0	3
Weber-Morgan	15	63
State Total	**154**	**719**

Table 3. Influenza Hospitalizations by Age Group - Utah, Season To Date

Age Group	Total Cases	% of Cases	Rate*
0-4	72	10.0	27.1
5-24	64	8.9	6.7
25-49	82	11.4	8.6
50-64	113	15.7	27.3
65+	388	54.0	147.7
Total	**719**	**100.0**	**25.2**

*Rate is calculated as the number of cases per 100,000 population

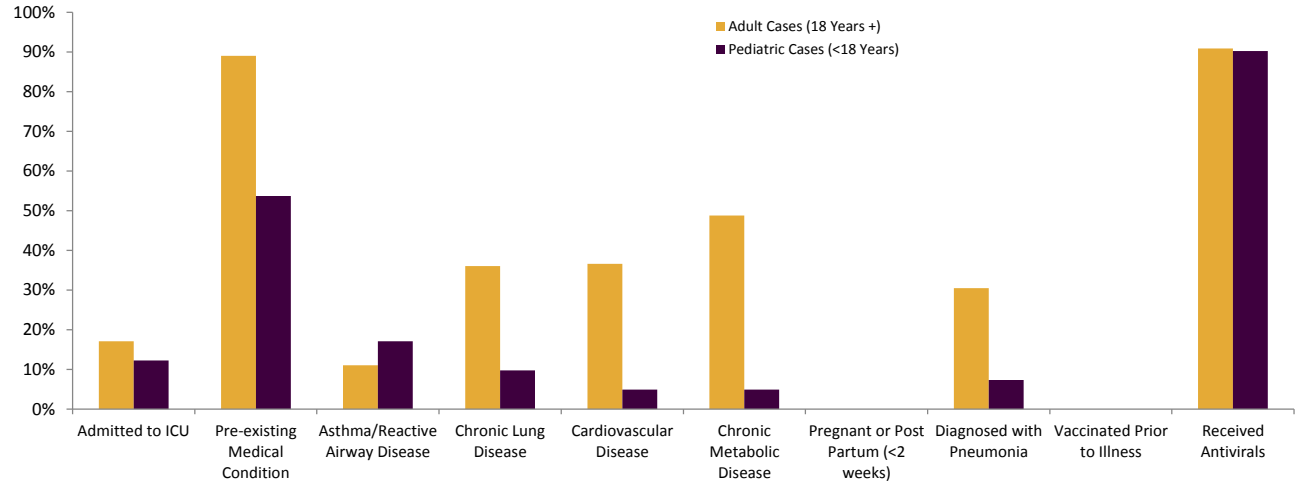
Table 4. Influenza Hospitalizations by Sex and Race - Utah, Season To Date

Variable		Num. of Cases	% of Cases	% in Utah Pop	p value*
Sex	Male	347	48.3	50.2	0.2872
	Female	369	51.3	49.8	0.4021
	Unknown	3	0.4	NA	--
Race	White, Not Hispanic	456	65.4	79.9	0.9400
	Hispanic	63	9.0	11.9	<0.0001
	Native Hawaiian/Pacific Islander	19	2.7	1.0	<0.0001
	Black/African American	9	1.3	1.3	<0.0001
	American Indian	4	0.6	1.5	0.2589
	Asian	8	1.1	2.2	0.0085
	Unknown	138	19.8	NA	--

*If a p value is ≤ 0.05, there is a significant difference between the percentage seen in influenza hospitalizations and the general Utah population.

Figure 3. Summary Data for Influenza Hospitalizations

Severity, common risk factors, prevention, and treatment information collected on a subset of influenza hospitalizations - Utah, 2014-2015



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Student Absenteeism: School-age children are at high risk for respiratory virus infections, including influenza. Aggregate, all-cause absenteeism data is collected weekly from over 350 schools throughout Utah. These data are analyzed to identify elevated absenteeism rates that could indicate the circulation of influenza in school-age children.

Figure 4. Student Absenteeism by Week

Rates for absences due to all causes - Utah, 2014-2015 and previous 3 year average

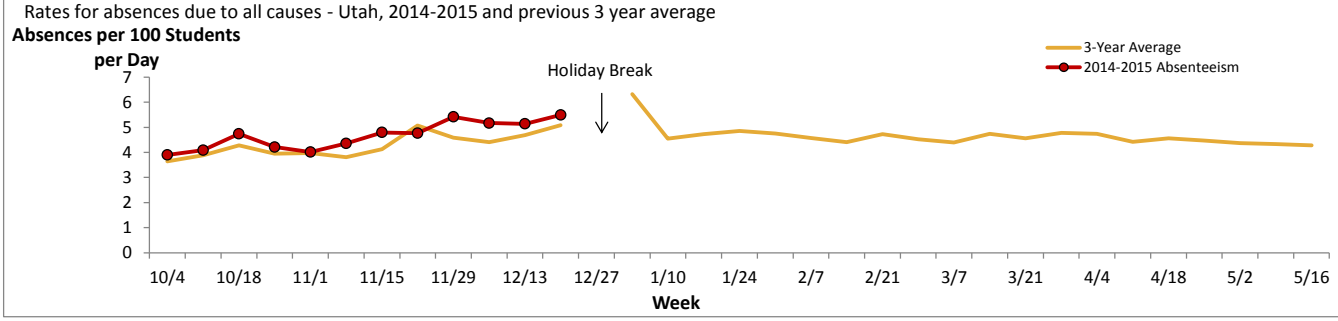


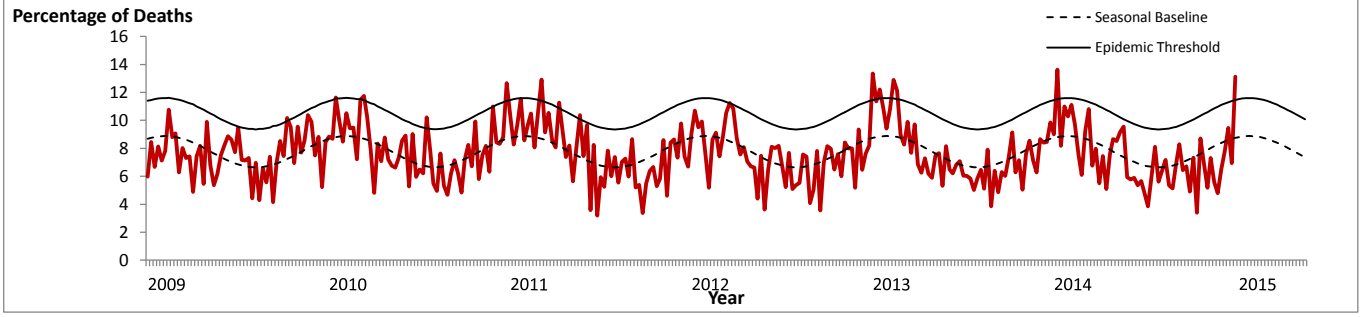
Table 6. Weekly Student Absenteeism - Utah, Current Week

Health District	Absences per 100 students/day
Bear River	--
Central Utah	--
Davis County	--
Salt Lake County	--
Southeast Utah	--
Southwest Utah	--
Summit County	--
Tooele County	--
TriCounty	--
Utah County	--
Wasatch County	--
Weber-Morgan	--
State Average	--

Pneumonia and Influenza Deaths: Each week the total number of death certificates received and the number of those for which pneumonia or influenza was listed as an underlying or contributing cause of death is collected. The percentage of deaths due to pneumonia and influenza are compared with a seasonal baseline and epidemic threshold value calculated for each week. These data are used to monitor the severity of influenza illness in the community.

Figure 5. Pneumonia and Influenza Deaths

Percentage of deaths attributable to pneumonia and influenza by week of death - Utah, 2009-2015



http://health.utah.gov/epi/data ● 801-538-6191 ● epi@utah.gov

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Laboratory Surveillance: The Utah Public Health Laboratory recieves specimens from all over the state for comprehensive influenza testing. All specimens are tested to determine influenza type and subtype. A portion of specimens are also sent to the Centers for Disease Control and Prevention for additional testing, including gene sequencing, antiviral resistance testing and antigenic characterization.

Figure 6. Influenza Positive Tests

Influenza positive specimens tested by the Utah Public Health Laboratory - Utah, 2014-2015

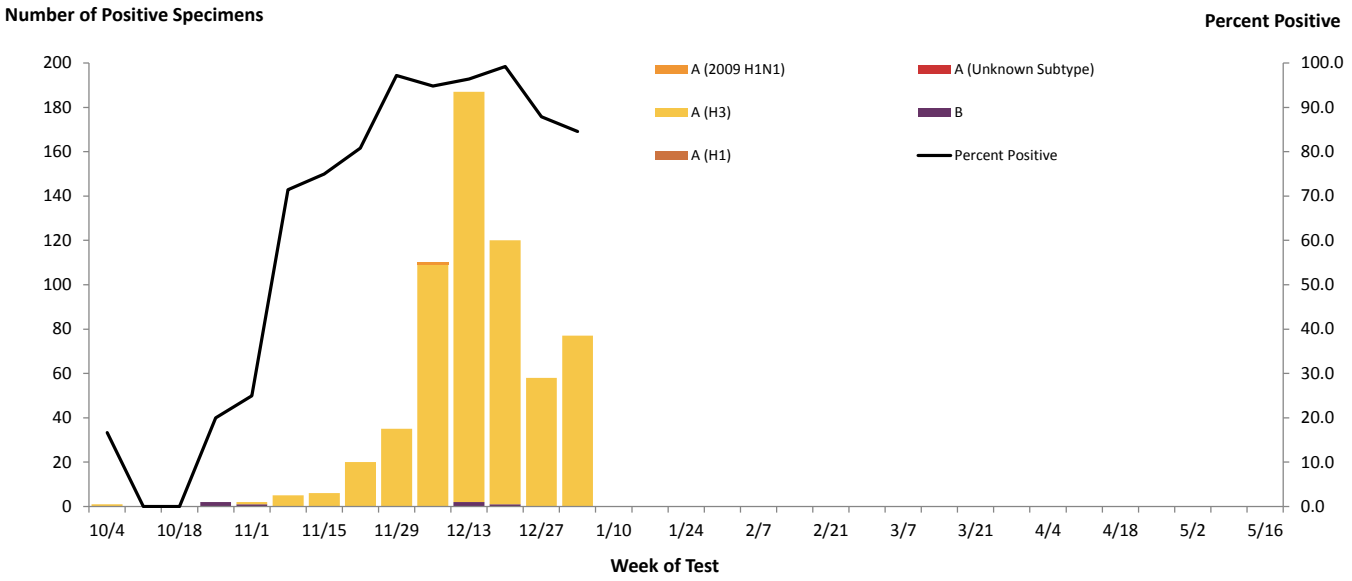

Table 8. Utah Public Health Laboratory Influenza Testing Data

	Current Week		Season To Date	
	Total	**Percent**	**Total**	**Percent**
Specimens tested	91	--	684	--
Positive specimens	77	84.6	623	91.1
Positive Specimens by Type/Subtype				
Influenza A	77	100.0	617	99.0
A (2009 H1N1)	0	0.0	1	0.2
A (H1)	0	0.0	0	0.0
A (H3)	77	100.0	616	99.8
A (unable to subtype)	0	0.0	0	0.0
Influenza B	0	0.0	6	1.0